

Description of the Drawings

B Fig. 1 shows a schematic representation of the constructed plasmids pAd-Luc, pAd-rsvLuc, pAd-mlcLuc, and pAd-smmhcLuc. BamHI, KpnI and HindIII designate the restriction enzyme interfaces of the corresponding enzyme. ITR represents "inverted terminal repeat," ψ represents the packaging sequence, mlc 2 represents the "myosin light chain"-2v promoter, luciferase represents the luciferase encoding sequence, Ad 9.4-18 m.u. represents the adenoviral sequence of 9.4 to 18 "map units" (1 m.u. - 360 bp) of adenovirus type 5 and ori/ampR represents the "origin of replication" and the ampicillin resistance gene.

Fig. 2 shows the recombined adenoviruses obtained by means of homologous recombination that come from the adenovirus del324, wherein the luciferase gene is cloned in the former E1 region. The expression of the luciferase gene is controlled by either the smmhc promoter (Ad-smmhcLuc) that is specific for the smooth vessel musculature, the mlc-2v promoter (Ad-mlcLuc) expression specific for the heart muscle, the RSV promoter (Ad-rsvLuc) as positive control, or by means of no promoter (Ad-Luc) as negative control. The abbreviations are similar to the ones in Fig. 1.

Figs. 3A-C show schematic representations of the luciferase activities of Ad-Luc, Ad-rsvLuc, Ad-mlcLuc, and Ad-smmhcLuc in different cell lines. The thin line in each column represents the average standard deviation.

Figs. 4A-C show schematic representations of the luciferase activities of Ad-Luc, Ad-rsvLuc, and Ad-mlcLuc in different primary cell tissues. The thin line in each column represents the average standard deviation of the experiments.

Figs. 5A-C show schematic representations of the luciferase activities of Ad-Luc, Ad-rsvLuc, and Ad-mlcLuc in different tissues after injection of recombined adenoviruses in the heart chamber of neonatal rats. The thin line in each column represents the average standard deviation of the experiments.